

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-9. (Canceled)

Claim 10. (New) A process for the thermal separation of (meth)acrylic monomer, comprising:

ascending at least one gaseous stream in a separating column containing a sequence of mass transfer trays and a liquid stream that contains dissolved polymerization inhibitor which descends the separating column, at least one of said streams comprising (meth)acrylic monomers; and

spraying the inner surface of the separating column with the descending liquid stream that contains the dissolved polymerization inhibitor, and the separating column having internals, certain areas of which are shadow regions of the sprayed descending liquid stream; and which shadow regions are equipped by covering means which prevent contact of the shadow regions with (meth)acrylic monomers and consequently undesired polymerization of monomer.

Claim 11. (New) The process as claimed in claim 10, wherein the inner surface of the separating column is sprayed with the liquid stream descending the separating column by the gaseous stream moving upward, as it passes through mass transfer trays, thereby entraining small liquid droplets from the liquid phase disposed thereon and spraying them upward into the column.

Claim 12. (New) The process as claimed in claim 10, wherein the internals of which the shadow regions are equipped by covering means, are double-T supports.

Claim 13. (New) The process as claimed in claim 10, wherein the internals of which the shadow regions are equipped by covering means, are U-shaped supports.

Claim 14. (New) The process as claimed in claim 10, wherein the mass transfer trays are sieve trays.

Claim 15. (New) A separating column containing a sequence of mass transfer trays that are supported by at least one covered double-T support and/or covered U-shaped support.

Claim 16. (New) The process as claimed in claim 11, wherein the internals of which the shadow regions are equipped by covering means, are double-T supports.

Claim 17. (New) The process as claimed in claim 11, wherein the internals of which the shadow regions are equipped by covering means, are U-shaped supports.

Claim 18. (New) The process as claimed in claim 11, wherein the mass transfer trays are sieve trays.

Claim 19. (New) The process as claimed in claim 10, wherein the gaseous stream and/or liquid stream is comprised of at least 2 % by weight (meth)acrylic monomer.

Claim 20. (New) The process as claimed in claim 19, wherein the gaseous stream and/or liquid stream is comprised of at least 10 % by weight (meth)acrylic monomer.

Claim 21. (New) The process as claimed in claim 11, wherein at least some of the mass transfer trays have an entrainment fraction of at least 10 % by weight up to 30 % by weight.